

REMARKS

Claims 1-3 and 20-22 are pending. Upon entry of the present response, claims 1-3 and 20-23 will be pending, claim 1 having been amended and claim 23 added in the present response. Claim 20 remains withdrawn. The amendments and the new claim find support in the specification and claims, for example.

103 Rejections

Claims 1-3, 21, and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Misiano (U.S. Patent 5,462,779), Imai (U.S. Patent 5,378,506), or Matsuda (JP 06-330318). Applicants traverse the rejections.

Claim 1 as amended is directed to a functional roll film having a *controlled* maximum thickness of an inorganic oxide layer of the film that is equal to or less than 1.5 times a *controlled* minimum thickness of the inorganic oxide layer of the film among layer thickness values measured *along the length and the width* of the film.

In contrast, Misiano discloses a film with an $\text{Al}_2\text{O}_3\text{-SiO}_2$ layer, in which the thickness of the layer is not a controlled thickness at all. Therefore, Misiano neither teaches nor suggests a controlled maximum thickness and a controlled minimum thickness of an inorganic oxide layer of a film, as in Applicants' claim 1.

Similarly, Imai discloses a film with a MgO layer, in which the layer thickness is not a controlled thickness at all. Therefore, Imai neither teaches nor suggests a controlled maximum thickness and a controlled minimum thickness of an inorganic oxide layer of a film, as in Applicants' claim 1.

Matsuda discloses a film with a MgO-SiO_2 layer, in which the thickness of the layer is monitored in the machine direction (MD), i.e., across the width, using a fluorescent x-ray monitor. See Matsuda, ¶0038. However, there is no mention of monitoring the thickness of the layer in the transverse direction (TD), i.e., along the length. Therefore, Matsuda neither teaches nor suggests a ratio of controlled thickness of an inorganic oxide layer along both length and width of the film, as in Applicants' claim 1.

Submitted herewith is a Declaration Under 37 C.F.R. 1.132, in which Applicants provide experimental data showing non-uniform film layer thickness.

Response to February 2, 2006 Final Office Action
Appn. Serial No. 09/500,132
Atty. Docket No. 11197/1

Also submitted herewith are two articles, Krug, T.G., "Transparent Barriers for Food-Packaging," *Proc. 33rd Annual Technical Conference*, Society of Vacuum Coaters, 1990, pp. 163-169, and Ohya, T., et al., "A Ceramic (SiO₂-Al₂O₃ mixture) Coated Barrier Film by Electron Beam Evaporation," *Proc. 43rd Annual Technical Conference*, Society of Vacuum Coaters, 2000, pp. 368-372.

Fig. 4 in the Krug article shows high transparency of at least 83% of 600 μm light, for example, through SiO_x coated films. Fig. 7 in the Ohya article shows high transparency of at least 89% of 600 μm light, for example, through a SiO₂-Al₂O₃ coated film. These high transparencies of layer coatings, which may be the same or similar to those of Misiano, Imai, and Matsuda, demonstrate the ineffective light disruptions of such layer coatings, thereby making it difficult to control the thickness of these layers.

For at least the above reasons, claim 1 and its dependent claims are believed to be patentable over Misiano, Imai, or Matsuda. Withdrawal of the rejections is therefore requested.

New claim 23

For at least the above reasons, new claim 23 is also believed to be patentable over Misiano, Imai, or Matsuda.

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CONCLUSION

It is respectfully submitted that the present application is now in condition for allowance, which action is respectfully requested.

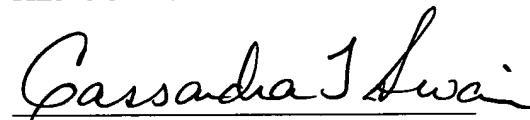
The Examiner is invited to contact Applicants' representative to discuss any issue that would expedite allowance of the subject application.

The Commissioner is authorized to charge any required fees or to credit any overpayment to Kenyon & Kenyon's Deposit Account No. 11-0600.

Respectfully submitted,

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Submitted herewith:
Declaration Under 37 C.F.R. 1.132
Krug Article
Ohya Article